



| Location | Time Local/ Date Standard | | th Numbe idth Perso (ards) Killed | | July 2006 Character of Storm |
|----------------------------------|--|----------------------|---|-----------------------------|--|
| LAKE ERIE | Sundai d | (IIII) | ands, Amou | Injusta Tisperty Crops | Children S. Boom |
| LEZ444 Luna Pier | Mi Waters Of Lake Er 14 1501EST | ie | 0 | 0 | Marine Tstm Wind (EG35) |
| LEZ444 North Cape | Mi Waters Of Lake Er 17 2245EST | ie | 0 | 0 | Marine Tstm Wind (EG54) |
| LEZ444 Luna Pier | Mi Waters Of Lake Er 30 1422EST | ie | 0 | 0 | Marine Tstm Wind (MG37) |
| LAKE HURON | | | | | |
| LHZ422 Bay Port | Inner Saginaw Bay & 9 04 0131EST | Sw Of Pt Au Gres | To Bay Port Mi 0 | 0 | Marine Tstm Wind (MG38) |
| LHZ421 Bay Port | Outer Saginaw Bay & 04 0131EST | | 0 | 0 | Marine Tstm Wind (MG38) |
| LHZ462 Harbor Beach LHZ441 | Lh Pt Austin To Hbr E 09 2006EST Pt Austin To Hbr Beac | | shore To Intl Bord 0 | er 0 | Marine Tstm Wind (MG35) |
| Harbor Beach LHZ422 | 09 2006EST Inner Saginaw Bay & S | | 0 To Bay Port Mi | 0 | Marine Tstm Wind (MG35) |
| Saginaw River Mouth LHZ462 | 17 1800EST Lh Pt Austin To Hbr E | | 0 | 0 er | Marine Tstm Wind (EG53) |
| Port Austin LHZ421 | 17 1830EST Outer Saginaw Bay & | Sw Of Alabaster T | | 0 | Marine Tstm Wind (EG55) |
| Port Austin LHZ441 Port Austin | 17 1830EST Pt Austin To Hbr Beac | ch Mi | 0 | 0 | Marine Tstm Wind (EG55) Marine Tstm Wind (EG55) |
| LHZ422 Bay Port | Inner Saginaw Bay & S | Sw Of Pt Au Gres | | 0 | Marine Tstm Wind (EG53) |
| LHZ421 Caseville | Outer Saginaw Bay & 17 1845EST | Sw Of Alabaster T | Γο Pt Austin Mi 0 | 0 | Marine Tstm Wind (EG53) |
| LHZ442 Harbor Beach | Hbr Beach To Pt Sanil 17 1858EST | ac Mi | 0 | 0 | Marine Tstm Wind (EG55) |
| LHZ463 Harbor Beach | Lh Hbr Beach To Pt St. 17 1858EST | | 0 | 0 | Marine Tstm Wind (EG55) |
| LHZ464 Lexington LHZ443 | Lh Pt Sanilac To Pt Ho 17 1900EST Pt Sanilac To Pt Huror | | е 10 mu вогаег 0 | 0 | Marine Tstm Wind (EG55) |
| Lexington LHZ421 | 17 1900EST Outer Saginaw Bay & | | 0 Γο Pt Austin Mi | 0 | Marine Tstm Wind (EG55) |
| Point Au Gres | 23 1040EST Arenac County reported | l a waterspout on Sa | 0 aginaw Bay near Po | 0 0 int Au Gres. | Waterspout |
| LHZ421 Alabaster | Outer Saginaw Bay & 23 1207EST Trained spotter reported | | 0 | 0 0 shore from Alabaster | Waterspout |
| LHZ422 Point Au Gres | Inner Saginaw Bay & 3 30 1400EST | Sw Of Pt Au Gres | To Bay Port Mi | 0 | Marine Tstm Wind (MG37) |
| LHZ421 Point Au Gres | Outer Saginaw Bay & 30 1400EST | Sw Of Alabaster T | Γο Pt Austin Mi 0 | 0 | Marine Tstm Wind (MG37) |





July 2006 Time Local/ Path Length Path Number of Estimated Width Persons Damage **LAKE HURON** LHZ442 Hbr Beach To Pt Sanilac Mi **Harbor Beach** 1422EST 0 Marine Tstm Wind (MG36) LHZ463 Lh Hbr Beach To Pt Sanilac 5Nm Offshore To Intl Border **Harbor Beach** 1422EST Marine Tstm Wind (MG36) 30 LHZ462 Lh Pt Austin To Hbr Beach Mi 5Nm Offshore To Intl Border 1422EST Marine Tstm Wind (MG36) **Harbor Beach** LHZ441 Pt Austin To Hbr Beach Mi **Harbor Beach** 30 1422EST 0 Marine Tstm Wind (MG36) LHZ464 Lh Pt Sanilac To Pt Huron 5Nm Offshore To Intl Border Marine Tstm Wind (MG38) Port Huron Gust recorded by Environment Canada observing equipment in Sarnia. LHZ443 Pt Sanilac To Pt Huron Mi **Port Huron** 1450EST Marine Tstm Wind (MG38) Gust Recorded by Environment Canada observing equipment in Sarnia. LAKE ST CLAIR LCZ460 Lake St Clair (U.S. Portion) 2230EST Marine Tstm Wind (EG50) **New Baltimore** 17 St Clair River LCZ422 2230EST Marine Tstm Wind (EG50) City Of St. Clair 17 0 LCZ423 **Detroit River** Belle Isle 2234EST 0 0 Marine Tstm Wind (EG43) LCZ422 St Clair River **Port Huron** 1450EST Marine Tstm Wind (MG38) Gust recorded by Environment Canada observing equipment in Sarnia. **LCZ460** Lake St Clair (U.S. Portion) **Grosse Pointe** 30 1455EST 0 Marine Tstm Wind (MG38) MICHIGAN, East St. Clair County 1 SW Capac 04 3K Thunderstorm Wind (EG52) A local newspaper article included a picture of a trampoline, that had been anchored into the ground, wrapped around the corner of a home's roof, reportedly shifting the wall by a couple of inches. Trees were also reported blown down. An early morning 4th of July thunderstorm was responsible for the damage. Downburst winds were estimated at around 60 MPH. Gushing rain and pelting hail also left plants ripped to shreds. Property damage was estimated at roughly \$3K. **Saginaw County** Saginaw 2300EST 8.5K Lightning A local newspaper reported that a house on Grant caught on fire after being struck by lightning. The second floor bedroom was completely engulfed in flames. The family of 7 escaped without injury. The blaze was blamed for \$8.5K in property damage. **Monroe County** 0823EST 3K Lightning **Temperance** Lightning struck a home under construction, destroying some siding and charring an electrical outlet. Property damage was estimated at roughly \$3K.





July 2006 Time Local Path Length Path Number of Estimated Width Persons Damage MICHIGAN, East **Monroe County** Samaria 1015EST 0 0 3K Lightning Lightning struck a shed and started a fire that burned several pieces of furniture stored inside. Property damage was roughly estimated at \$3K. Monroe County Thunderstorm Wind (EG50) 2 S Ottawa Lake 14 1455EST O 0 The Toledo broadcast media reported trees blown down. **Monroe County** Lambertville 14 1501EST 0 Thunderstorm Wind (EG50) Central Dispatch reported wires down. Midland County Midland 17 1730EST 50K Thunderstorm Wind (EG55) A trained spotter reported trees blown down in Midland. A local newspaper article also included a picture of a very large 80 foot honey locust tree lying on top of a home. The tree punched through the back sunroom of the home. A neighbor also lost a 50 foot cherry tree due to the thunderstorm winds. Several other large trees were reported blown down across the city of Midland. Midland County was hit particularly hard. Thousands of customers lost power, with most going without power for 3 to 4 days due to the extent of the tree damage across the region. The road commission responded to 24 calls of trees down across roadways. Midland firefighters responded to 50 storm related calls, most involving downed trees and power lines. The most damage in the city occurred from Nelson Street to the downtown area, and in the area of Nakoma Drive and Jefferson Avenue. At least one vehicle was damaged due to fallen debris. Property damage in the area was roughly estimated at around \$50K. **Saginaw County** 6.5 S Freeland 17 1740EST 60K Thunderstorm Wind (EG58) A local newspaper reported numerous accounts of trees blown down across Thomas, James, and Saginaw Townships. Several homes were damaged along the Geddes and Thomas road areas. One home sustained significant damage and a destroyed garage. Another Thomas Township home's garage wall bowed out. A fallen tree also destroyed a parked vehicle in James Township. No injuries were reported. Total property damage was roughly estimated at \$60K. **Saginaw County** St Charles 1740EST Thunderstorm Wind (EG55) A local newspaper article included a picture of a power line and a large maple tree blown down and blocking Hosmer Street near Coal Street in St. Charles. **Saginaw County** 1742EST Saginaw Arpt **17** Thunderstorm Wind (MG57) **Saginaw County** 1745EST 106K **Saginaw** Lightning Delayed entry. Two and half months after the incident, a newspaper article reported that lightning had caused severe damage to a Church bell tower. Lightning hit the brick spire of a Church's 76 year old bell tower, sending 300 to 400 pounds of broken rocks flying throughout the surrounding neighborhood. It will cost the Church \$106K to repair the tower. **Saginaw County** 2 W Saginaw 17 1745EST Thunderstorm Wind (EG52) A trained spotter reported several 6 inch diameter limbs down. **Saginaw County** Merrill 0 Thunderstorm Wind (EG55) 17 1750EST

A trained spotter reported several large trees and power lines blown down.





July 2006 Time Local/ Path Length Number of Estimated Persons Damage Width MICHIGAN, East **Bay County Bay City** 17 1800EST 0 Thunderstorm Wind (EG55) Central dispatch reported trees blown down in Bay City. Midland County Midland 17 Lightning Lightning struck a home, sparking a fire. Property damage was roughly estimated at \$5K. **Saginaw County** Burt 0 Thunderstorm Wind (EG53) A trained spotter reported an 8 inch diameter tree blown down. **Tuscola County** Thunderstorm Wind (EG55) **Fairgrove** 17 Central dispatch reported multiple trees blown down in Fairgrove. **Tuscola County** Vassar 17 1815EST 0 Thunderstorm Wind (EG55) Central dispatch reported trees blown down in Vassar. **Genesee County Flushing** 17 1818EST Thunderstorm Wind (EG56) A trained spotter estimated thunderstorm wind gusts of 65 mph. **Genesee County** Mt Morris 17 Thunderstorm Wind (EG55) A trained spotter reported 15 inch diameter trees blown down along I-475 at Saginaw Rd. **Huron County Port Austin** 17 1830EST 0 0 Thunderstorm Wind (EG57) Central dispatch reported multiple trees blown down across M-25 in and around Port Austin. **Lapeer County** Otter Lake 17 1830EST Thunderstorm Wind (EG54) A trained spotter reported a 12 inch diameter tree blown down. **Huron County** Thunderstorm Wind (EG55) **Bad Axe** 17 A trained spotter reported trees blown down and estimated wind gusts of 65 mph. **Huron County** Caseville **17** 0 25K Thunderstorm Wind (EG55) A trained spotter reported numerous trees blown down. Docks were twisted and part of a decorative wall of bricks along the Pigeon River collapsed. Several homes were damaged. Total damages in this area were roughly estimated at around \$25K. No injuries or deaths were reported. **Huron County** 7 S Bad Axe 17 Thunderstorm Wind (EG58) A local newspaper article included pictures of large trees blown down. At least 10 large evergreen trees, over 30 feet tall, were snapped in half. Branches and pieces of tree trunks were thrown across a residents yard. The home, however, was not damaged. No injuries were sustained. **Huron County Harbor Beach** 17 1858EST 75K Thunderstorm Wind (EG85) Local newspaper articles reported that the storms left behind a trail of destruction through Harbor Beach, with numerous trees, some very large, ripped from their roots and power lines down through the entire area. The storms left the entire city without power. Many vehicles and structures, including homes, were damaged by fallen debris. Several boats were tossed about and washed ashore on Sand Point. An NWS survey confirmed that this area was struck by a microburst with winds up to 100 MPH. Remarkably, No

injuries or deaths were reported. Total property damage in Harbor Beach was estimated at \$75K.





Thunderstorm Wind (EG53)

July 2006 Time Local Path Length Path Number of Estimated Damage Width Persons MICHIGAN, East **Sanilac County** 1900EST Forestville 17 0 Thunderstorm Wind (EG55) Central dispatch reported multiple trees blown down in Forestville. Sanilac County Lexington 17 Thunderstorm Wind (EG55) Central dispatch reported several trees and power lines blown down. **Huron County** Port Hope to Harbor Beach 17 1905EST 1915EST Thunderstorm Wind (EG85) An NWS survey confirmed trees blown down in a widespread area from Port Hope to Harbor Beach. The survey concluded that the damage was consistent with a microburst producing wind gusts estimated at 80 to 100 mph. **Sanilac County** 17 4 E Sandusky 1915EST 15K Thunderstorm Wind (EG55) A local newspaper article included a picture of a large tree blown down on top of a vehicle parked next to a home. A camper and pickup truck were also damaged by the fallen tree. Property damage is roughly estimated at \$15K. No injuries were reported. **Huron County Harbor Beach** 17 1924EST 0 0 200K Lightning A local newspaper article included a photograph of a home burned down. The fire was sparked by an electrical line blown down onto the home by thunderstorm winds. The couple was able to escape the home without injury. The value of the home itself was \$150K, not including its contents. The couple lost all of their belongings in the fire. Total damages were roughly estimated at \$200K. **Saginaw County** 1935EST Hail(1.75) Merrill 0 The public reported golf ball size hail in Merrill. **Shiawassee County** Countywide **17** 2115EST Thunderstorm Wind (EG55) Central dispatch reported trees blown down across the county. **Genesee County** 3 S Flint Thunderstorm Wind (EG53) 17 2144EST 0 Local firefighter reported a telephone pole blown down. **Oakland County** Highland Thunderstorm Wind (EG53) Central dispatch reported a tree blown down. **Livingston County** Howell **17** 2150EST 0 8K Thunderstorm Wind (EG55) A local newspaper reported several trees blown down in Howell and included a picture of a work van pinned beneath the trunk of a large tree on Barnard Street. Total damage to the vehicle was roughly estimated at \$8K. **Oakland County** 2150EST White Lake **17** Thunderstorm Wind (EG53) 0 Law enforcement reported a large tree limb down. **Oakland County** Thunderstorm Wind (EG53) **Rochester Hills** 2151EST 0 0 Law enforcement reported a tree blown down. **Macomb County**

0

0

2152EST

Broadcast media reported a tree blown down.

17

Disco





July 2006 Time Local/ Path Length Path Number of Estimated Width Damage Persons MICHIGAN, East **Oakland County** Commerce 17 2201EST 0 0 Thunderstorm Wind (EG53) Law enforcement reported a tree blown down. Washtenaw County Dexter 17 2215EST Thunderstorm Wind (EG52) A local nespaper article reported that 3 trees that had blown down were removed from area roadways and seven others were attended to as well. Washtenaw County 6 ESE Dexter **17** 2225EST 0 0 15K Thunderstorm Wind (EG52) A local newspaper article reported a tree blown down across Newport Road near M-14 and another larger tree, about 3 feet in diameter, blown down on part of a house being renovated. No injuries were reported. Property damage was roughly estimated at \$15K. Lenawee County **Tecumseh** 17 2230EST 0 Thunderstorm Wind (EG53) Central dispatch reported several trees blown down. St. Clair County 2230EST Thunderstorm Wind (EG52) St Clair 17 0 Trained spotter reported an 8 inch diameter tree limb down. **Washtenaw County** 4.5 SE Dexter 20K Thunderstorm Wind (EG52) A local newspaper article reported that the top 20 feet of a tree was blown down, crashing through the roof and into the kitchen of a home on Dolph Drive near Jackson Road. The residents of the home narrowly escaped injury. Property damage was roughly estimated at \$20K. **Lenawee County** Thunderstorm Wind (EG53) Rollin 17 2235EST 0 0 Central dispatch reported several trees blown down. **Monroe County** 3 NE Carleton 17 Thunderstorm Wind (EG54) Trained spotter reported 20 inch diameter trees blown down. **Wayne County** 1.5 NE Highland Park 17 2301EST 1 Lightning A couple was struck by lightning after taking shelter from the rain under a tree at 2301 EST in Krainz Park near East Hildale and Justine on Detroit's east side. The pair was taken to Detroit Receiving Hospital, where the 44 year old woman was later pronounced dead. The 2nd person, a 46 year old male, survived but was initially in temporary serious condition at the hospital. F44UT

The July 17th severe weather event would eventually go down as the largest and most destructive of the 2006 severe weather season. Intense thunderstorms fired along and ahead of a cold front working down from the northern Great Lakes and eventually developed into a large MCS by mid evening. The Tri Cities and thumb regions were especially hard hit during this event. Several microbursts actually produced 100 MPH wind gusts across northeast Huron county, causing quite a bit of damage. The outflow created from the storms across the north actually held together long enough to spread south. There were several reports of trees blown down in areas south of M-59, although the damage was minimal when compared to the destruction across the northern parts of the area. Very few reports of hail were received, however, golf ball size hail was reported in Saginaw County. This event caused one death and one injury in Wayne County. A couple was struck by lightning after seeking refuge under a tree.





July 2006 Time Local/ Path Length Path Width Number of Estimated Persons Damage Character of Storm

| MICHIGAN, East | | | | | | | |
|--|--|--|------------------------|-------------------|-----------------------------------|--|--|
| Oakland County White Lake | _ | 0100EST ng struck a home and melted wires in the ceili s at \$5K. | 0 ng that sta | 0 arted the in | 5K nsulation and wood o | Lightning on fire. The local fire chief estimated | |
| Genesee County 1 SE Linden | 27 NWS E | 2045EST mployee reported a tree blown down between 1 | 0 Linden and | 0 d Fenton | | Thunderstorm Wind (EG52) | |
| Livingston County 5 NNW Howell | 27 Road Co | 2048EST ommission reported a tree blown down. | 0 | 0 | | Thunderstorm Wind (EG52) | |
| Genesee County Linden | 27 NWS er | 2050EST mployee reported a tree blown down. | 0 | 0 | | Thunderstorm Wind (EG52) | |
| Livingston County 4 N Howell | 27 Road Co | 2050EST ommission reported a tree blown down. | 0 | 0 | | Thunderstorm Wind (EG52) | |
| Livingston County 6 NNE Howell | 27 Road Co | 2052EST ommission reported a tree blown down. | 0 | 0 | | Thunderstorm Wind (EG52) | |
| MIZ047>049-053>055- 060>063-068>070- 075>076-082>083 | Midland - Bay - Huron - Saginaw - Tuscola - Sanilac - Shiawassee - Genesee - Lapeer - St. Clair - Livingston - Oakland - Macomb - Washtenaw - Wayne - Lenawee - Monroe | | | | | | |
| V/3/V/V-V04/V03 | 29 31 | 1200EST 2359EST | 0 | 25 | | Heat | |

This 2006 heat wave delivered the hottest weather the region had experienced in at least 4 years. A 5 day stretch of maximum temperatures at or above 90 degrees began on Saturday, July 29th. A blanket of especially high heat and oppressive humidity settled over the area on Monday, July 31st, and remained relentless through Wednesday, August 2nd. Temperatures, on the 31st, soared above 90 by noon with heat indices over 100 degrees. Heat indices averaged between 105 and 110 degrees through the entire afternoon. Detroit topped out at 96 and set a new high temperature record for July 31st, breaking the previous record of 95 set in 1955. Little relief was felt Monday evening with temperatures not dropping below 90 until 1900 EST. Most significantly, Detroit Metro tied the all time record for the warmest minimum temperature, for any date, when it failed to record a temperature below 80 degrees on July 31st. This had happened only 3 other times in the previous 136 years of record keeping, and this was the first time in 64 years that it had happened again. The major power companies in the area reported an all-time record customer demand for power from 1500 to 1600 EDT on the 31st. Remarkably, very few heat related illnesses occurred during the event. Newspaper articles revealed an extremely high level of awareness and preparedness from the communities across southeast lower Michigan. A large number of cooling centers were made available to those in need as folks reportedly heeded the warnings and took extra precaution. Although area hospitals reported some increase due to heat related illnesses, most were mild and due to heat exhaustion and dehydration. Four cases of heatstroke were confirmed in Wayne and Macomb Counties, 2 on the 30th and 2 on the 31st. No heat related deaths were reported.

Sanilac County 1.5 SE New Greenleaf

29 0 0 8K Thunderstorm Wind (EG56)

A local newspaper included pictures of several small trees uprooted at a residence along Cleland Road in northwest Sanilac County. Two barn roofs also sustained some damage. A strong downburst, associated with a pulse severe thunderstorm, generated wind gusts estimated at 65 MPH in a localized area. Property damage was estimated by owner at around \$8K.





| Location | Date | Time Local/ Standard | Path Length (Miles) | Path Width (Yards) | Numb Pers Killed | | Estimated Damage Property Crops | July 2006 Character of Storm |
|--|---------------|-------------------------------|---------------------------|--------------------------|------------------------|---|---------------------------------------|---------------------------------|
| MICHIGAN, East | | | | | | | | |
| Midland County 3 NW Midland | 30 Centra | 1230EST dispatch report | ed a tree and p | ower lines b | 0 lown down. | 0 | | Thunderstorm Wind (EG52) |
| Shiawassee County 6 S Owosso | 30 Centra | 1243EST dispatch report | ed trees blown | down. | 0 | 0 | | Thunderstorm Wind (EG52) |
| Shiawassee County 4 NE Corunna | 30 Centra | 1245EST dispatch report | ed a tree blowr | n down. | 0 | 0 | | Thunderstorm Wind (EG52) |
| Livingston County 2 NE Fowlerville | 30 Centra | 1259EST dispatch report | ed a tree blowr | n down. | 0 | 0 | | Thunderstorm Wind (EG52) |
| Livingston County 1 E Parkers Corners | 30 Centra | 1305EST dispatch report | ed a tree blowr | n down. | 0 | 0 | | Thunderstorm Wind (EG52) |
| Genesee County Flushing | 30 Trained | 1310EST d spotter reported | d 30 trees blow | n down. | 0 | 0 | | Thunderstorm Wind (EG55) |
| Livingston County 5 ENE Oak Grove | 30 Centra | 1310EST dispatch report | ed a tree blowr | ı down. | 0 | 0 | | Thunderstorm Wind (EG52) |
| Livingston County 4 E Parkers Corners | 30 Centra | 1310EST dispatch report | ed a tree blowr | n down. | 0 | 0 | | Thunderstorm Wind (EG52) |
| Genesee County 2 S Mt Morris | 30 Traine | 1315EST d spotter reported | d a tree blown | down. | 0 | 0 | | Thunderstorm Wind (EG52) |
| Genesee County Mt Morris | 30 Traine | 1315EST d spotter reported | d a 12 inch dia | meter tree bl | 0 lown down. | 0 | | Thunderstorm Wind (EG52) |
| Genesee County 3 SE Swartz Creek | 30 Trained | 1315EST d spotter reported | d a tree blown | down. | 0 | 0 | | Thunderstorm Wind (EG52) |
| Livingston County 5 N Brighton | 30 Centra | 1318EST dispatch report | ed a tree blowr | n down. | 0 | 0 | | Thunderstorm Wind (EG52) |
| Tuscola County 3 E Colling | 30 Centra | 1354EST dispatch report | ed a tree blowr | ı down. | 0 | 0 | | Thunderstorm Wind (EG52) |
| St. Clair County 4 NW Port Huron | 30 Trained | 1445EST d spotter reported | d large limbs d | own near Po | 0 ort Huron. | 0 | | Thunderstorm Wind (EG50) |

A large complex of thunderstorms, originating in Wisconsin during the morning of the 30th, moved across the region during the afternoon. These storms occurred during a heat wave with an unstable airmass in place. The main action occurred as damaging wind gusts on the leading bow-shaped edge of the thunderstorm complex, occurring primarily across the central portions of southeast lower Michigan.